



9.27 Village of Ocean Beach

This section presents the jurisdictional annex for the Village of Ocean Beach.

9.27.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Name: James Mallot Address: P.O. Box 457, Ocean Beach, NY 11770 Phone Number: 631-583-5940 Email address: themallotts74@aol.com	Name: Kevin Schelling Address: P.O. Box 457, Ocean Beach, NY 11770 Phone Number: 631-583-5940 Email address: info@villageofoceanbeach.org

9.27.2 Municipal Profile

This section provides a summary of the community. Additional community profiling information, including geographic area and data, general demographics, income and poverty, employment and housing may be found in the Village's New York Rising Community Reconstruction Program Conceptual Plan available at:

http://stormrecovery.ny.gov/sites/default/files/crp/community/documents/fire_island_concept_plan_012414.pdf.

Population

According to the U.S. Census, the 2010 population for the Village of Ocean Beach was 79.

Location

Per Village of Ocean Beach Chapter 164, Article VI, Comprehensive All-Hazards Code, "The village area, being situated on Fire Island, one of the barrier island of Long Island, separating the Atlantic Ocean and the Great South Bay in the Town of Islip, is placed in a geographical area which is expected to be affected by at least one tropical storm every five plus years, and at least one hurricane every 14 plus years.

The Village consists of approximately 572 homes, most of them being secondary residences.

Brief History

Ocean Beach was incorporated as a village in 1921. It was the location of Fire Island's first elementary school, which opened in 1918.

Governing Body Format

Mayor and four trustees

Growth/Development Trends

None identified at this time.



9.27.3 Natural Hazard Event History Specific to the Municipality

Suffolk County has a history of natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The table below presents a summary of events that have occurred from 2008 to the present to indicate the range and impact of natural hazard events in the community. Information regarding specific damages is included if available based on reference material or local sources. For details of events prior to 2008, refer to Volume I, Section 5.0 of this plan.

Table 9.27-1. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
October 27-November 8, 2012	Hurricane Sandy	DR-4085	Yes – IA (Individual Assistance) and PA (Public Assistance)	Debris damage to village roads & village trail system causing closure. Flood damage to 50 ft. foot bridge in trail system pending replacement.
August 26 – September 5, 2011	Hurricane Irene	EM 3328 DR 4020	Yes – IA and PA	Extensive debris damage, loss of electrical and telephone to village hall and a large portion of the village peninsula for upwards of 10 days.
December 26-27, 2011	Severe Winter Storm and Snowstorm	DR 1957	Yes - PA	No damage reported.

EM Emergency Declaration (FEMA)
 FEMA Federal Emergency Management Agency
 DR Major Disaster Declaration (FEMA)
 IA Individual Assistance
 N/A Not applicable
 PA Public Assistance



9.27.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Village of Ocean Beach. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for Village of Ocean Beach.

Table 9.27-2. Hazard Risk/Vulnerability Risk Ranking

Hazard Ranking	Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c, e}	Probability of Occurrence ^b	Risk Ranking Score (Probability x Impact)
8	Coastal Erosion	RCV in CEHA: \$29,028,204	Occasional	12
5	Drought	Damage estimate not available	Occasional	24
5	Earthquake	500-Year MRP: \$96,087,975 2,500-Year MRP: \$1,637,521,453	Rare	24
9	Expansive Soils	Damage estimate not available	Rare	6
1	Flood	1% Annual Chance: \$137,639,580 0.2% Annual Chance: \$176,693,437	Frequent	54
7	Groundwater Contamination (natural)	Damage estimate not available	Frequent	18
3	Hurricane	Category 1 SLOSH: \$457,852,019 Category 2 SLOSH: \$496,027,651 Category 3 SLOSH: \$506,864,928 Category 4 SLOSH: \$506,864,928	Occasional	36
9	Infestation	No measurable impact to property	Rare	6
2	Nor'Easter	100-Year RCV: \$574,924,335 500-Year RCV: \$5,317,985,701	Frequent	48
4	Severe Storm	100-Year RCV: \$574,924,335 500-Year RCV: \$5,317,985,701	Occasional	32
2	Severe Winter Storm	1% of GBS: \$3,192,267 5% of GBS: \$15,961,333	Frequent	48
9	Shallow Groundwater Flooding	Damage estimate not available	Rare	6
6	Wildfire	Estimated RCV in Interface/Intermix: \$109,129,060	Occasional	20

a. Building damage ratio estimates based on FEMA 386-2 (August 2001)

b. The valuation of general building stock and loss estimates was based on the custom inventory developed for Suffolk County and probabilistic modeling results and exposure analysis as discussed in Section 5.

c. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages and the Tribes within the Town boundary.



- d. Frequent = Hazard event that occurs more frequently than once in 10 years; Occasional = Hazard event that occurs from once in 10 years to once in 100 years, Rare = Hazard event that occurs from once in 100 years to once in 1,000 years; None = Hazard event that occurs less frequently than once in 1,000 years
- e. The estimated potential losses for Nor'Easter and Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.

CEHA = Coastal Erosion Hazard Area

GBS = General building stock

MRP = Mean return period

RCV = Replacement cost value

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the municipality.

Table 9.27-3. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)	# Policies in 500-year Boundary (3)	# Policies Outside the 500-year Flood Hazard (3)
Village of Ocean Beach	570	962	\$46,714,500	128	23	552	0	18

Source: FEMA Region 2, 2014

Note (1): Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of January 31, 2014. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents the number of claims closed by January 31, 2014.

Note (2): Information regarding total building and content losses was gathered from the claims file provided by FEMA Region 2.

Note (3): The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file. FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

Table 9.27-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽²⁾	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽²⁾
Ocean Beach Fire Department	Fire	A	X	16.0	75.6	630	21.0	92.1	630
Ocean Beach Police Dept	Police	A	X	15.1	70.6	630	19.5	87.8	630
Ocean Beach STP	Wastewater	A	X						

Source: HAZUS-MH 2.1

Note: x = Facility located within the 0.2-percent annual chance flood boundary.

Please note it is assumed that wells have electrical equipment and openings are three-feet above grade.

(1) HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).



(2) In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type.

Other Vulnerabilities Identified by Municipality

In addition to those identified above, the municipality has identified the following vulnerabilities:

- Per Village of Ocean Beach Chapter 164, Article VI, Comprehensive All-Hazards Code, “The village area, being situated on Fire Island, one of the barrier island of Long Island, separating the Atlantic Ocean and the Great South Bay in the Town of Islip, is placed in a geographical area which is expected to be affected by at least one tropical storm every five plus years, and at least one hurricane every 14 plus years...the Village is entirely situated within mapped flood and coastal erosion hazard areas and, for the small size of the village, has seven different flood hazard zones and a coastal erosion hazard zone within the village’s jurisdiction and is also situated within the Fire Island National Seashore, a fragile, environmentally sensitive barrier island estuary.”
- The entire Village is extremely low-lying. Groundwater is typically 2’ below ground surface or less.
- The Village experiences ½’ of flooding throughout the Village on extreme high-tides.



9.27.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the municipality.

Table 9.27-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Y		Building Department	As per Village of Ocean Beach Code §64, the Village has adopted the New York State Uniform Fire Prevention and Building Code and International Building Code.
Zoning Ordinance	Y	Local	Building Department, Planning Board, Zoning Board, Architectural Review Board	Village of Ocean Beach Code §164 Note: Article VI. Comprehensive All-Hazards Code
Subdivision Ordinance	Y	Local	Planning Board, Zoning Board	
NFIP Flood Damage Prevention Ordinance	Y	State and Local	Building Department	Ch. 300-16, 9/09 Village of Ocean Beach Code §90 Last NFIP map updates in 2009. Higher regulatory standards – they use a 41% substantial damage threshold. They are in the process of easing the setback requirements to allow for ramps/stairs needed when elevating properties.
NFIP - Freeboard	Y	State	Building Department	Ch. 300-16 - State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other
NFIP - Cumulative Substantial Damages	N	Local		
Growth Management	N			
Stormwater Management Plan/Ordinance	N			Not required
Comprehensive Plan / Master	Y			Identified in Ch. 162, Waterfront



Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Plan/ General Plan				Consistency Review, and Local Waterfront Revitalization Plan (LWRP)
Capital Improvements Plan	Y			
Site Plan Review Requirements	Y		Planning Board, Zoning Board, Architectural Review Board	
Open Space Plan	N			
Local Waterfront Revitalization Plan (LWRP)	Y			Bayfront Recreation District is part of the LWRP
Stream Corridor Management Plan	N/A			
Watershed Management or Protection Plan	N/A			
Economic Development Plan	N			Economic development is being considered within the NYRCRP
Comprehensive Emergency Management Plan	Y			
Emergency Response Plan	Y			ERP with all volunteer emergency agencies.
Post Disaster Recovery Plan				
Post Disaster Recovery Ordinance				
Real Estate Disclosure Requirement	Y		NYS Mandate	
Other [Special Purpose Ordinances (i.e., critical or sensitive areas)]				

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Ocean Beach.

Table 9.27-6. Administrative and Technical Capabilities

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Contracted - Land Use, H2M
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Building Inspector, Contracted - H2M
Planners or engineers with an understanding of natural hazards	Y	Contracted -Land Use
NFIP Floodplain Administrator	Y	Building Inspector is designated NFIP FPA; Currently served by Lou Santura
Surveyor(s)	Y	Contracts



Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
Personnel skilled or trained in “GIS” applications	Y	Contracted - Land Use, H2M
Scientist familiar with natural hazards in the municipality.	Y	Contracted - Land Use, H2M
Emergency Manager	Y	Mayor and Police
Grant Writer(s)	Y	H2M
Staff with expertise or training in benefit/cost analysis	Y	H2M
Professionals trained in conducting damage assessments		NFIP Floodplain Administrator

Note: The Village contracts with “Land Use” for waterfront permitting support

Fiscal Capability

The table below summarizes financial resources available to the Village of Ocean Beach.

Table 9.2-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG)	Generally not eligible
Capital Improvements Project Funding	Y
Authority to Levy Taxes for specific purposes	Y
User fees for water, sewer, gas or electric service	Y, user fees and tax
Impact Fees for homebuyers or developers of new development/homes	Y, permitting fees
Incur debt through general obligation bonds	Y
Incur debt through special tax bonds	N
Incur debt through private activity bonds	N
Withhold public expenditures in hazard-prone areas	N
Mitigation grant programs	Y
Other	

Community Classifications

The table below summarizes classifications for community program available to the Village of Ocean Beach.

Table 9.27-8. Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	TBD	TBD
Public Protection	TBD	TBD
Storm Ready		
Firewise	NP	N/A

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.



The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

National Flood Insurance Program

The following section provides details on the National Flood Insurance Program (NFIP) as implemented within the municipality:

NFIP Floodplain Administrator: Louis Santora,

Program and Compliance History

Village of Ocean Beach joined the NFIP on May 21, 1977, and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated September 25, 2009. The community's Flood Damage Prevention Ordinance (FDPO), found at Chapter 90 of the local code, and was last updated on July 11, 2009.

As of January 31, 2014 there are 570 policies in force, insuring \$163,113,500 of property with total annual insurance premiums of \$985,441. Since January 31, 2014, 962 claims have been paid totaling \$46,714,500. As of January 31, 2014 there are 128 Repetitive Loss and 23 Severe Repetitive Loss properties in the community.

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The current NFIP Floodplain Administrator has no knowledge of when the last CAV was performed. The municipality sees no specific need for a CAV at this time.

Loss History and Mitigation

Since January 31, 2014, 962 claims have been paid totaling \$46,714,500. As of January 31, 2014 there are 128 Repetitive Loss and 23 Severe Repetitive Loss properties in the community.

It is estimated 400 homes along with the entire business district on the bay front sustained flood damage from Hurricane Sandy. Substantial Damage Estimates are made by the NFIP Floodplain Administrator. To date, 20 Increased Cost of Compliance (ICC) letters have been distributed. 10 homes have begun the



elevation process. Once ICC grants are finalized and approved, more are expected to begin elevating and mitigation projects. Funding sources include private funding, flood insurance, grant funding and ICC.

Planning and Regulatory Capabilities

The communities Flood Damage Prevention Ordinance (FDPO) was last updated on July 11, 2009, and is found at Chapter 90 of the local code.

Floodplain management regulations and ordinances exceed FEMA and New York State minimum requirements by enforcing 41% Substantial Damage threshold in lieu of 50%.

Administrative and Technical Capabilities

The community FDPO identifies the building inspector as the local NFIP Floodplain Administrator, currently Louis Santora, for which floodplain administration is an auxiliary duty.

Duties and responsibilities of the NFIP Administrator are educating the public on code requirements of New York and FEMA regarding flood zones and elevating homes, permit review, inspections, damage assessments, and record-keeping. GIS services are provided by the Town of Islip if needed.

Building permits are required to state whether or not the work being done is as a result of flood damage. This is the method implemented to track properties that have sustained flood damage.

Substantial Damage Estimates are made by the NFIP Floodplain Administrator. To date, 20 Increased Cost of Compliance (ICC) letters have been distributed.

Louis Santora feels he is adequately supported and trained to fulfill his responsibilities as the municipal floodplain administrator. Louis Santora is not certified in floodplain management, however attends regular continuing education programs for code enforcement.

Public Education and Outreach

In the Village of Ocean Beach, the following educational and/or outreach activities related to the NFIP: pamphlets on counter at Village office for public to peruse and take, phone calls or meetings with the public NFIP FPA regarding flood risk concerns, and posting information to Village website as it becomes available.

Actions to Strengthen the Program

A higher resolution flood zone map would be a useful tool to have and make implementing the floodplain management program easier in the Village of Ocean Beach. The Village has 6 flood zones and very small lots. A clearer picture would allow for more sound management.



Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation “capabilities”:

Land Use Plans – maintain the Comprehensive Plan and waterfront revitalization plan to minimize risk in hazard areas. Updates will include a review of the HMP to ensure that hazard areas are identified in the respective plans.

Zoning, Building Regulation and Code Enforcement: The Village of Ocean Beach has adopted Article VI. Comprehensive All-Hazards Code to their Chapter 164, Zoning Code. The purpose of the Article is to “establish standard and procedures relating to land use and building regulations, and necessary to address all-hazards, including flooding, coastal and floodplain management, stormwater management, coastal erosion and wind that incorporates standards more restrictive than those require by state and/or federal law.”

Building Code, Ordinances, and Enforcement – review planned development against the hazard areas identified in the HMP during zoning and subdivision reviews.

Building Code, Ordinances, and Enforcement – maintain NFIP flood damage prevention ordinance.

Emergency Response Plan – the village developed and adopted an Emergency Response Plan in order to outline in detail the functions and responsibilities of each village department during a large scale natural or man-made emergency, so that response to emergencies lessens the severity of a disaster on property and the population. This plan includes many pre-event actions that both mitigate disaster losses, and directly supports recovery efforts.

Public Education and Outreach – Public education and outreach in the Village includes monthly meetings with public invited, the village website, liaison to the Ocean Beach Association, and direct mailings.

Land Use Planning: A higher resolution flood zone map would be a useful tool to have and make implementing the floodplain management program easier in the Village of Ocean Beach. The Village has 6 flood zones and very small lots. A clearer picture would allow for more sound management.



9.27.6 Mitigation Strategy and Prioritization

This section discusses past mitigations activity within the Village, describes proposed hazard mitigation initiatives, and prioritization.

Past Mitigation Initiatives

- After the 1962 storm, several jetties were constructed on the ocean front to protect the beach by diffusing and dispersing wave energy. These still exist, however they are significantly degraded.
- GeoCubes (non-interlocked sand bags) and TrapBags (inter-locked) are in use on the ocean front.
- GeoTubes (sand tubes) were located in the 1990's along 800' between the jetties, with a 200' double set protecting the wells.
- In consideration is a \$7M bulk-heading project for the Ferry Terminal through the DOT to raise the bulkheads, however this doesn't seem to be practical/feasible as this would only elevate a limited area of the exposure.
- Some residents are elevating.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Ocean Beach identified mitigation initiatives they would like to pursue in the future. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Table 9.27-9 identifies the municipality's updated local mitigation strategy.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.27-10 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.27-9. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
VOB-1	Assess and prioritize options to retrofit, acquire, or relocate structures located in hazard-prone areas, and support implementation as funding becomes available. Implementation is further supported by county-led initiatives identified below.	Existing	Coastal Erosion, Earthquake, Flood, Hurricane, Infestation, Nor'Easter, Severe Storm, Wildfire	2, 6, 9, 15, 16	Village of Ocean Beach, Village Clerk/Treasurer; H2M, P.C.	High	High	Federal and State Mitigation Grant Programs and local budget (or property owner) for cost share	Short	High	SIP
VOB-2	Assess and prioritize options to elevate residences in flood hazard areas, and implement as funding becomes available.	Existing	Coastal Erosion, Earthquake, Flood, Hurricane, Infestation, Nor'Easter, Severe Storm	1, 3, 9, 15	Village of Ocean Beach, Village Clerk/Treasurer; H2M, P.C.	High	High	Federal and State Mitigation Grant Programs and local budget (or property owner) for cost share	Short	High	SIP
VOB-3	Sandy HMGP LOI #148 - Assess and prioritize options to construct new drinking water supply wells, including a safe rooms to protect operators during emergencies, and implement as funding becomes available.	See Action Worksheet (VOB-3 – LOI 148– 040114)									



Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
VOB-4	Install a tubewall inflatable barrier floodwall system, and implement as funding becomes available.					See Action Worksheet (VOB-4 – New supply well and Safe Room – 040114)					
VOB-5	Sandy HMGP LOI #701 - Install flood doors at the sewage treatment plant.					See Action Worksheet (VOB-5 – LOI 701 –040114)					
VOB-6	Sandy HMGP LOI #702 - Elevate the floor, drain, and critical equipment in the sewage treatment plant					See Action Worksheet (VOB-6 – LOI 702 – 040114)					
VOB-7	Sandy HMGP LOI #703 - Install valves in the drain piping in the sewer treatment plant.					See Action Worksheet (VOB-7 – LOI 703 –040114)					
VOB-8	Sandy HMGP LOI #705 - Construct a new 3.5 foot high reinforced concrete wall on top of the sludge holding tank at the sewage treatment plant.					See Action Worksheet (VOB-8– LOI 705 –040114)					
VOB-9	Sandy HMGP LOI #1033 - Install a new PLC based control system at the sewage treatment plant.					See Action Worksheet (VOB-9 – LOI 1033 –040114)					
VOB-10	Sandy HMGP LOI #1333 - Raise the electric service transformer for the sewage treatment plant.					See Action Worksheet (VOB-10 – LOI 1333 –040114)					



Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
VOB-11	Install back-up power generation for all critical facilities.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	7, 13, 14, 15, 16	Village of Ocean Beach, Village Clerk/Treasurer; H2M, P.C.	Medium	High	Federal and State Mitigation Grant Programs and local budget for cost share	Short	High	SIP
VOB-12	Assess and prioritize options to repair and improve docks, and implement as funding becomes available.	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	2, 10, 15, 16	Village of Ocean Beach, Village Clerk/Treasurer; H2M, P.C.	Medium	Medium	Local	Short	Medium	SIP
VOB-13	Assess and prioritize options to protect the bayside shoreline, and implement as funding becomes available.	N/A	Flood, Hurricane, Nor'Easter, Severe Storm	5, 8, 10, 15	Village of Ocean Beach, Village Clerk/Treasurer; H2M, P.C.	Medium	Medium	Federal and State Mitigation Grant Programs and local budget for cost share	Long-term	Medium	NRP
VOB-14	Assess and prioritize options to protect emergency access routes, and implement as funding becomes available.	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	12, 13, 14, 15, 16	Village of Ocean Beach, Village Clerk/Treasurer; H2M, P.C.	High	High	Local	Short	High	SIP



Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
VOB-15	Support and participate in county led initiatives (see Section 9.1) intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> • Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program) • Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities) • Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners) • Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County (build regional, county and local capabilities to manage seismic risk, both pre- and post-disaster) Alignment of Mitigation Initiatives through all levels of Government (effort to build State and Federal level recognition and support of the County and local hazard mitigation planning strategies identified in this plan).										
	See above	Both	All Hazards	All Objectives	Suffolk County, as supported by relevant local department leads,	High (comprehensive improvements mitigation and risk-reduction capabilities)	Low-Medium (locally)	Local (staff resources)	Short	High	All types
VOB-16	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered “critical”, and to be the first priority for clearing after an event involving downed power lines.	Existing	Severe Storm; Severe Winter Storm; Hurricane; Nor’ Easter	3, 7, 13, 14, 15, 16	PSEG, County	High	Low-Medium	Local	Short	High	LRP

Notes:

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FMA	Flood Mitigation Assistance grant program
HMA	Hazard Mitigation Assistance grant program (including FMA, HMGP, PDM)
HMGP	Hazard Mitigation Grant Program
N/A	Not applicable
NFIP	National Flood Insurance Program
NYSOEM	New York State Office of Emergency Management





PDM *Pre-Disaster Mitigation grant program*
PSEG *Public Service Electric and Gas (formerly LIPA)*

Costs:

Where actual project costs have been reasonably estimated:

Low = < \$10,000
Medium = \$10,000 to \$100,000
High = > \$100,000

Where actual project costs cannot reasonably be established at this time:

Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
Medium = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low = < \$10,000
Medium = \$10,000 to \$100,000
High = > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low = Long-term benefits of the project are difficult to quantify in the short term.
Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
High = Project will have an immediate impact on the reduction of risk exposure to life and property.

Timeline:

Short = 1 to 5 years
Long Term = 5 years or greater
OG = On-going program
DOF = Depending on funding

Mitigation Category:

- *Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.*
- *Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.*
- *Natural Systems Protection (NRP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.*
- *Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.*



Table 9.27-10. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
VOB-1	Assess and prioritize options to retrofit, acquire, or relocate structures located in hazard-prone areas, and support implementation as funding becomes available. Implementation is further supported by county-led initiatives identified below.	1	1	0	1	1	1	-1	1	1	1	1	1	1	1	11	High
VOB-2	Assess and prioritize options to elevate residences in flood hazard areas, and implement as funding becomes available.	1	1	0	1	1	1	-1	1	1	1	1	1	1	1	11	High



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
VOB-3	Sandy HMGP LOI #148 - Assess and prioritize options to construct new drinking water supply wells, including a safe rooms to protect operators during emergencies, and implement as funding becomes available.	1	1	-1	1	1	1	-1	1	1	1	1	1	1	1	10	High
VOB-4	Install a tubewall inflatable barrier floodwall system, and implement as funding becomes available.	0	1	1	0	0	1	-1	1	1	1	1	1	0	1	8	High
VOB-5	Sandy HMGP LOI #701 - Install flood doors at the sewage treatment plant.	-1	1	0	1	0	1	-1	1	0	-1	1	1	0	0	3	Low
VOB-6	Sandy HMGP LOI #702 - Elevate the floor, drain, and critical equipment in the sewage treatment plant	1	1	0	1	0	1	-1	1	0	-1	0	1	-1	0	3	Low
VOB-7	Sandy HMGP LOI #703 - Install valves in the drain piping in the sewer treatment plant.	1	0	1	1	0	1	-1	1	0	-1	1	1	0	0	5	Medium



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
VOB-8	Sandy HMGP LOI #705 - Construct a new 3.5 foot high reinforced concrete wall on top of the sludge holding tank at the sewage treatment plant.	1	1	0	0	0	1	-1	1	1	-1	1	1	1	1	7	High
VOB-9	Sandy HMGP LOI #1033 - Install a new PLC based control system at the sewage treatment plant.	1	1	-1	1	0	1	-1	1	0	-1	1	1	1	0	5	Medium
VOB-10	Sandy HMGP LOI #1333 - Raise the electric service transformer for the sewage treatment plant.	1	1	1	1	0	1	-1	1	1	-1	0	1	1	0	7	Medium
VOB-11	Install back-up power generation for all critical facilities.	1	1	-1	1	1	1	-1	0	1	1	1	1	1	1	9	High
VOB-12	Assess and prioritize options to repair and improve docks, and implement as funding becomes available.	0	1	0	1	1	1	0	0	0	1	1	1	1	1	9	Medium



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
VOB-13	Assess and prioritize options to protect the bayside shoreline, and implement as funding becomes available.	0	1	0	1	1	1	-1	1	1	1	1	0	1	1	9	Medium
VOB-14	Assess and prioritize options to protect emergency access routes, and implement as funding becomes available.	1	0	0	1	1	1	0	0	1	1	1	1	1	1	10	High
VOB-15	Support and participate in county led initiatives...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
VOB-16	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.	1	1	1	1	1	1	1	0	1	1	1	1	1	1	13	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



9.27.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.27.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Ocean Beach that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Ocean Beach has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.27.9 Additional Comments

None at this time.



Figure 9.27-1. Village of Ocean Beach Hazard Area Extent and Location Map 1

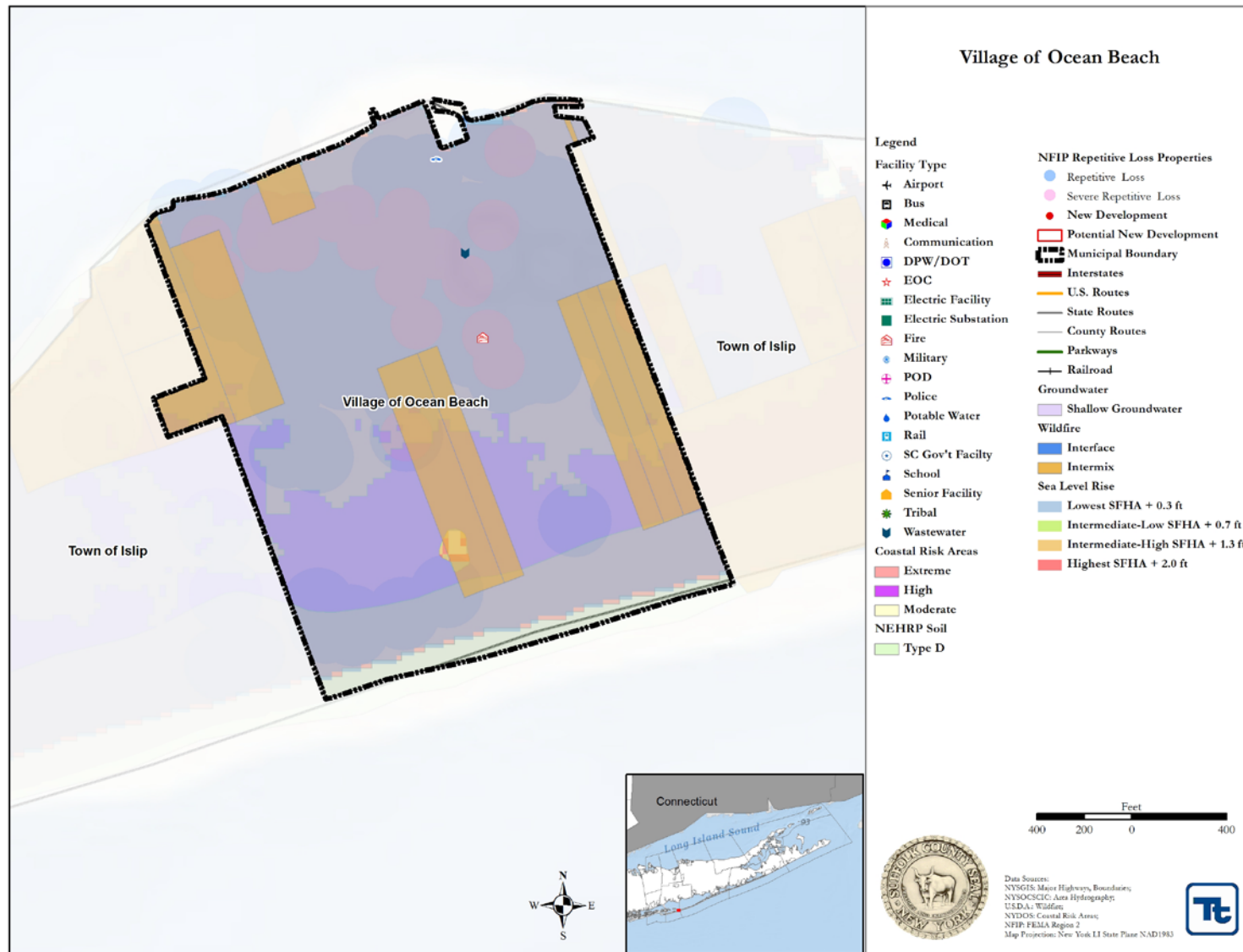
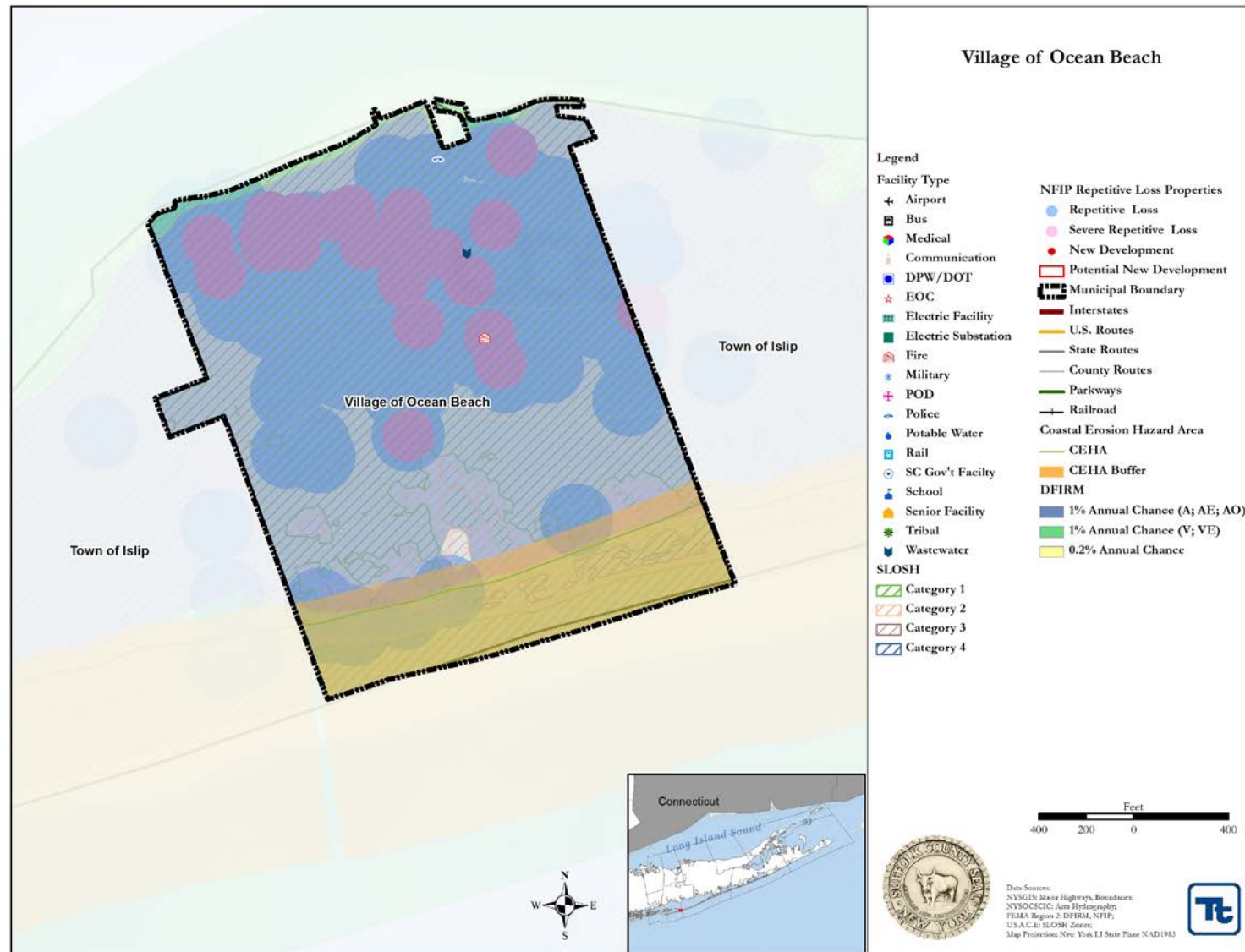




Figure 9.27-2. Village of Ocean Beach Hazard Area Extent and Location Map 2





Mitigation Action Worksheet

Please complete one sheet per action/project with as much detail as possible, using the guidance beginning on page 3 and examples provided by FEMA.

Name of Jurisdiction: Village of Ocean Beach

Number: VOB-3 (Sandy HMGP LOI #: 148)

Mitigation Action/Initiative: New Supply Well and Safe Room

Assessing the Risk	
Hazard(s) addressed:	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm
Specific problem being mitigated:	Water supply systems have a vital role in public health protection. Having an ample supply of safe drinking water for consumptive use and fire protection is essential to health and property protection. During Superstorm Sandy the Village and its water system sustained significant flooding and storm surge damage. The water supply well system was knocked out of service after the storm, leaving the Village without potable water and fire protection.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The Village proposes to construct a new supply well facility on the bay side of the island. The finished supply well elevation will be above flood level. In addition the well will be housed within a fortified building complete with a safe room to protect operators during a significant storm event. This new supply well facility will greatly improve water supply resiliency by ensuring that potable water is available at all time for safe consumptive use and fire protection purposes.
Mitigation Action/Project Type	SIP
Objectives Met	2, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Future infrastructure
Benefits (losses avoided)	Recent Damages: \$470,000
Estimated Cost	\$2,500,000
Priority*	High
Plan for Implementation	
Responsible Organization	Inc. Village of Ocean Beach: Paul Granger, Vice President
Local Planning Mechanism	



Potential Funding Sources	HMGP; local budget for match
Timeline for Completion	
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Prioritization

Number: VOB-3 (Sandy HMGP LOI #: 148)

Mitigation Action/Initiative: New Supply Well and Safe Room

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	-1	Without this well, there is major safety and health issues
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	Not budgeted
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Mitigation Action Worksheet

Please complete one sheet per action/project with as much detail as possible, using the guidance beginning on page 3 and examples provided by FEMA.

Name of Jurisdiction: Village of Ocean Beach, Village Clerk/Treasurer
Number: VOB-5 (Sandy HMGP LOI# 701)
Mitigation Action/Initiative: Installation of Flood Doors at Sewage Treatment Plant

Assessing the Risk	
Hazard(s) addressed:	Flood, Hurricane, Nor'Easter, Severe Storm
Specific problem being mitigated:	The Inc. Village of Ocean Beach treatment plant building floor elevation was flooded to a depth of 27-inches during Superstorm Sandy. With a lower floor elevation, the Adsorber building also was flooded. The NYS2100 Commission recommendations to improve resilience of the State's infrastructure includes a goal of upgrading treatment plants and collection systems to continue functioning in 500-year flood events, taking into account anticipated flood level rise. There are doors that would provide a pathway for flood waters to inundate portions of the treatment plant. Should flooding occur at vulnerable locations, electric equipment could be damaged and the pumps will not have sufficient capacity to convey excessive inflow through floor drains in the treatment facility buildings. Excessive flow will also reduce the level of treatment
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. 2. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install 18 to 24-inch high flood doors at doors to the treatment plant and adsorber buildings to protect flood inflow to floor drains. Mitigation would reduce staffing needs during storm events, electric costs associated with pumping inflow through the treatment plant, and the cleanup within buildings following flooding
Mitigation Action/Project Type	NRP
Objectives Met	2, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing infrastructure
Benefits (losses avoided)	Recent Damages: \$40,000
Estimated Cost	\$40,000
Priority*	Low
Plan for Implementation	
Responsible Organization	Village of Ocean Beach, Village Clerk/Treasurer: Steven Hearl, P.E., Project Manager, H2M, P.C.



Local Planning Mechanism	
Potential Funding Sources	HMGP; local budget for match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Prioritization

Number: VOB-5 (Sandy HMGP LOI# 701)

Mitigation Action/Initiative: Installation of Flood Doors at Sewage Treatment Plant

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	-1	
Property Protection	1	
Cost-Effectiveness	0	
Technical	1	
Political	0	
Legal	1	
Fiscal	-1	Unbudgeted
Environmental	1	
Social	0	
Administrative	-1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	3	
Priority (High/Med/Low)	Low	



13. Local Champion – Is there a strong advocate for the action or project among the jurisdiction's staff, governing body, or committees that will support the action's implementation?
14. Other Local Objectives – Does the action advance other local objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of other plans and programs?



Mitigation Action Worksheet

Please complete one sheet per action/project with as much detail as possible, using the guidance beginning on page 3 and examples provided by FEMA.

Name of Jurisdiction: Village of Ocean Beach, Village Clerk/Treasurer
Number: VOB-8 (Sandy HMGP LOI #705)
Mitigation Action/Initiative: Raise Top of Sludge Holding Tank at Sewage Treatment Plant

Assessing the Risk	
Hazard(s) addressed:	Flood, Hurricane, Nor'Easter, Severe Storm
Specific problem being mitigated:	The top slab of the sludge holding tank at the Inc. Village of Ocean Beach sewage treatment plant was underwater to a depth of more than 1.5 feet during Superstorm Sandy. The NYS2100 Commission recommendations to improve resilience of the State's infrastructure includes a goal of upgrading treatment plants and collection systems to continue functioning in 500-year flood events, taking into account anticipated flood level rise. The mixer on top of the tank was flooded and the floodwater entered the tank.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. 2. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Construct a new 3.5 foot high reinforced concrete wall on top of the tank. With the increase in height above grade, a ladder will need to be provided over the wall and down to the top slab. Modifications will be needed to the vent piping and access hatch. A higher top slab elevation will eliminate labor and operations cost associated with decanting the sludge and processing the decant through the treatment plant. Costs associated with servicing or replacing the mixer after flooding would also be avoided.
Mitigation Action/Project Type	SIP
Objectives Met	2, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing infrastructure
Benefits (losses avoided)	Recent Damages: \$2,000
Estimated Cost	\$43,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Ocean Beach, Village Clerk/Treasurer: Steven Hearl, P.E., Project Manager, H2M, P.C.
Local Planning Mechanism	



Potential Funding Sources	HMGP; _____ for Local Match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Prioritization

Number: VOB-8 (Sandy HMGP LOI #705)

Mitigation Action/Initiative: Raise Top of Sludge Holding Tank at Sewage Treatment Plant

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	0	
Technical	0	
Political	0	
Legal	1	
Fiscal	-1	Unbudgeted
Environmental	1	
Social	1	
Administrative	-1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	7	
Priority (High/Med/Low)	High	



Mitigation Action Worksheet

Please complete one sheet per action/project with as much detail as possible, using the guidance beginning on page 3 and examples provided by FEMA.

Name of Jurisdiction: Village of Ocean Beach

Number: VOB-10 (Sandy HMGP LOI #1333)

Mitigation Action/Initiative: Raise Electric Service Transformer for Sewage Treatment Plant

Assessing the Risk	
Hazard(s) addressed:	Flood, Hurricane, Nor'Easter, Severe Storm
Specific problem being mitigated:	The Village of Ocean Beach wastewater treatment plant has one electric service. The NYS2100 Commission recommendations to improve resilience of the State's infrastructure includes a goal of upgrading treatment plants and collection systems to continue functioning in 500-year flood events, taking into account anticipated flood level rise. During Superstorm Sandy, the enclosure to this primary electric service transformer became partially submerged during storm surge at an elevation just below the wiring terminations. Had the flood elevation been just a few inches higher, the transformer would have been damaged by marine waters and may have shorted out. Loss of this transformer could lead to a loss of ability of the facility to treat wastewater which would impact water quality in the Great South Bay.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install new pole mounted transformers. Installing the transforms on the pole would mitigate the potential for flooding. The mitigations would avoid costs such as the need to rehabilitate or replace the transformer by marine flood waters and minimize the potential loss of wastewater treatment at the facility.
Mitigation Action/Project Type	SIP
Objectives Met	2, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing infrastructure
Benefits (losses avoided)	Recent Damages: \$0
Estimated Cost	\$50,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Ocean Beach: Steven Hearl, P.E., Project Manager, H2M, P.C.





Local Planning Mechanism	
Potential Funding Sources	HMGP; local budget for match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Prioritization

Number: VOB-10 (Sandy HMGP LOI #1333)

Mitigation Action/Initiative: Raise Electric Service Transformer for Sewage Treatment Plant

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	1	
Fiscal	-1	
Environmental	1	
Social	1	
Administrative	-1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	7	
Priority (High/Med/Low)	Medium	